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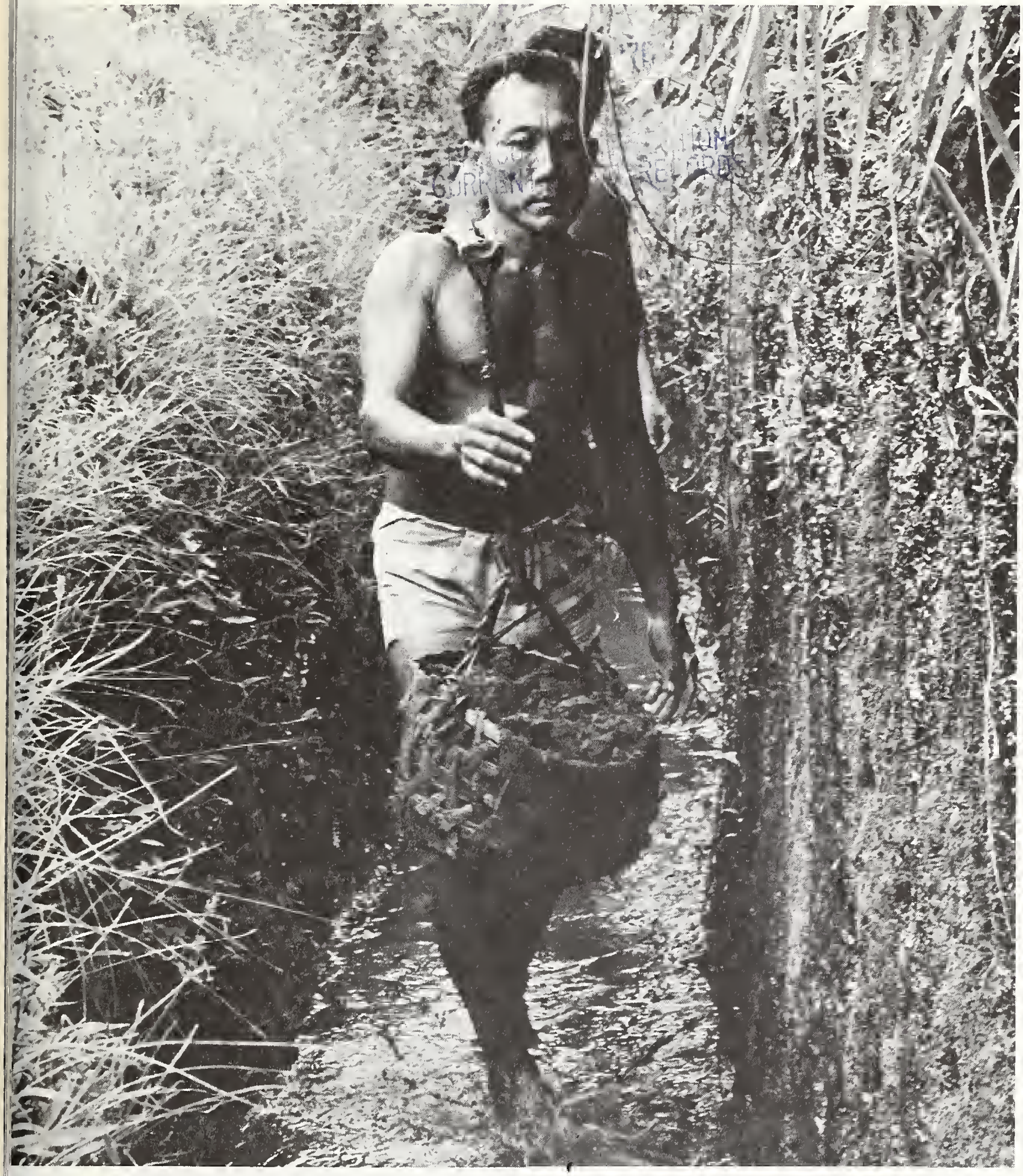

ing irrigation ditches in Indonesia.

Indonesia's Farm Output Rises

World Food Prices

Foreign
Agricultural
Service
U. S. DEPARTMENT
OF AGRICULTURE

FOREIGN AGRICULTURE

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This week's cover:

Digging irrigation ditches on Sumatra, Indonesia. With the help of massive foreign assistance and stepped-up Government funding, Indonesia is expanding its farm output—a move helped by good weather in 1975. See article opposite.

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Indonesia Gained Last Year In Push To Up Farm Output

It has been described both as a country of vast economic potential and one "moving unarrestably toward tragedy." Its wealth of natural resources includes 2 percent of the world's oil and natural gas reserves, vast reserves of minerals and uncut hardwood, and a wide range of farm products grown on unbelieveably rich volcanic soils. But as the world's fifth most populous nation, with an incessant population growth rate of 2.6 percent a year, it also faces problems of crowding, poverty, inflation, and unemployment.

The nation is Indonesia, which as much as anything wants to produce more food to feed its burgeoning population. A look at its recent progress toward this goal—and at its agricultural trade with the United States—follows.

FAVORABLE monsoon weather boosted most of Indonesia's 1975 crops, including the all-important rice harvest, at a time when recession and slackened petroleum exports were handicapping the rest of the economy—a step forward that agricultural planners hope to repeat in 1976. Agricultural trade, on the other hand, headed downward, with a 17 percent gain in U.S. farm exports to Indonesia the exception of note in an otherwise sluggish import and export picture.

Reaping the benefits of good weather and added inputs, Indonesia's farm output last year rose by about 5 percent. Rice production hit an alltime high; long-term expansion in palm and coconut plantings continued, permitting Indonesia to lift its ban on copra exports; and output of sugar, coffee, and tobacco also gained. Only the livestock sector experienced an off year, with large declines in cattle numbers, despite ambitious plans to boost cattle production and exports.

At the same time, Indonesia continued to receive massive foreign assistance for economic and agricultural development. Through 1975, aid commitments totaled $920 million from the major assisting nations, $1,050 million from private banks, and about $400 million from other countries, making up one of the most far-reaching assistance efforts in the world today.

Agricultural development projects benefiting from this and Government funding included the Bimas and Inmas programs, which aim at boosting farm output through use of high-yielding seeds, increased irrigation, and other improvements not dependent on mechanization. Such programs are to be extended in the near future to include efforts to eradicate plant disease, including a menacing rice pest called the Wereng plant insect which this past year attacked about 120,000 hectares of riceland; provide more high-yielding seed; and improve credit facilities.

Parallel with these efforts, construction of irrigation facilities is receiving continued attention, with most of the development funds going toward construction of simple irrigation works throughout Indonesia.

Rice, the major food crop, is estimated at a new high of 15.34 million metric tons in 1975/76, milled basis, compared with 15.28 million the year before. But while up from the previous year's, the crop fell well under the 1975/76 target of 15.63 million tons, which the Government hopes will finally be reached in 1976/77.

The country also will be boosting rice imports sharply in 1976/77—to a planned level of about 1.5 million tons, compared with only 670,000 tons estimated for 1975/76. Nearly half of this total will be carried over from 1975/76 contracts, which include commercial purchases of 156,798 tons from Thailand, 70,000 from Australia, 60,714 from Hong Kong, 5,750 from Burma, and 310,185 from other sources. The nearly 900,000 tons in new contracts to be made in 1976/77 will include 200,000 tons of U.S. rice shipped under Title I of the Public Law 480 concessional sales program.

This decision to boost imports sharply in 1976/77 is partly a response to the depleted stock level of last year, plus the ready availability of foreign rice at low prices and under concessional sales programs. Although the Government hopes eventually to expand rice output enough to eliminate such imports, the prospect of this happening soon appears slim. Rice consumption is still being driven up by rapid population growth and a shift to increased rice consumption as incomes rise.

In the meantime, the Government continues to import large amounts of **wheat.** These imports are targeted to rise to over 1 million tons in 1976/77 from 834,402 and 768,683 estimated for the previous 2 years.

Around 930,000 tons of this will be under new contracts, including 327,000 tons from Australia and 100,000 tons of P.L. 480 wheat and 76,000 tons of cash sales from the United States.

A 50-percent lower price for wheat flour than for rice has caused some consumers to shift to this product, thus boosting import demand.

Production of **corn,** from which Indonesia hopes to develop sizable exports, fell to 2.6 million tons in 1975/76 from 3.2 million in 1974/75. A moderate gain to 2.8 million tons is forecast for 1976/77, but chances of corn's passing its previous record—3.8 million tons set in 1964—seem slim, as does any quick realization of Indonesia's hope to become a sizable corn exporter. Last year, the country exported only 50,100 tons out of a total corn supply estimated at 3.44 million, and exports this year are estimated at a modest 63,400 tons.

Corn's traditional role as a domestic food crop has been declining in recent years, while its use as an animal feed for the emerging livestock industry is growing—trends expected to continue in coming years. In the future, Indonesia also will be putting more corn under its Inmas and Bimas programs, with the goal of boosting output substantially to permit larger exports. As of 1975/76, a total of 216,350 hectares reportedly was planted under the Bimas program, and 147,200, under the Inmas program.

Production of **palm oil**—next to rubber, Indonesia's largest agricultural export—continues its steady growth of recent years, and tentative estimates indicate that it set an alltime high of 404,000 tons in 1975. Of this, around 385,000 tons were exported to a wide variety of markets, with the top buyers the Netherlands, Japan, and Pakistan. Export earnings from palm oil last year totaled slightly over $150 million, compared with $166 million in 1974.

Palm oil production in 1976 is tentatively forecast at another record of 450,000 tons, of which about 400,000 probably will move into export.

Smaller quantities of **palm kernel oil** are produced; however, most of this is retained at home for use as a coconut oil substitute.

Copra production in Indonesia last year hit an estimated 640,000 tons, compared with 570,000 in 1974, when copra production totaled 1.35 million tons, copra equivalent. Although coconut

production is an important industry in Indonesia, most of the resulting copra and coconut oil is retained for home consumption. The country had, in fact, banned copra exports until June 1975, when the ban was relaxed in the face of a threatened 100,000-ton surplus in the producing regions.

Export earnings from coconut products in 1975 included around $2 million for copra, compared with none the previous year, and $25 million for copra cake, compared with $32 million.

During the Second Five Year Development Plan, which began in April 1974, 4 million coconut seedlings are to be distributed throughout Indonesia. In addition, a new type of super seedling will be distributed for use in rejuvenating coconut plantations.

Among other oil-bearing products, **soybean and peanut** crops probably rose in 1975 from the 550,225 and 314,762 tons of 1974.

SUGARCANE and coffee production both rose last year.

Production of **cane** is estimated up to 1,050,000 tons from 1 million in 1974, while coffee managed a 16 percent gain to an estimated 186,181 tons as a result of the rehabilitation of old trees and better management practices.

Coffee is Indonesia's third largest agricultural export behind rubber and palm oil, earning $95 million during the rather dull 1975 season, compared with $101 million in 1974. This year and over the near term, however, export earnings from coffee should enjoy strong growth as a result of rising world prices and expanding demand for Indonesian coffee in the Netherlands, the United States, and Japan.

Production of **tea** in 1975 is estimated at 68,514 million tons, compared with 66,319 the year before. Export earnings from tea last year rose to $50.4 million from $43.6 million the year before, to place this product next to coffee as an agricultural export. Rehabilitation of tea plantings continues in Indonesia on both estate and smallholding units.

Next in line, after tea, as an export crop—earning $37.7 million last year—**tobacco** production rose an estimated 6 percent during 1975 to 72,300 tons. As in past years, Indonesia had a surplus of Virginia tobacco, with that exportable surplus in 1975 totaling around 2,249 tons. Any gain in shipments will probably come from this crop.

Despite an ambitious livestock development program, Indonesia's **livestock** production had made little headway through 1975. Numbers of most animals, in fact, were down last year from the 1974 levels, with those of cattle off 3.9 percent; goats, 4.1 percent; water buffalo, 3.2 percent; and sheep, 4.1 percent. And numbers of beef cattle and water buffalo for slaughter plunged 31 and 42 percent, respectively, reflecting Indonesian attempts to maintain cattle and beef exports to Hong Kong and other traditional markets.

Currently, most of the livestock ventures in Indonesia are smallholder operations of 3 acres or less. These smallholders lack capital and skills, do not make enough use of superior breeds, and do not feed the cattle well. The Government has attempted to aid them by making short-term credit available and through breed improvement programs. In 1974/75 the latter programs included artificial insemination of a targeted 50,000 cows and Government distribution of some 8,870 animals of superior breeds.

Indonesian exports of agricultural products (including forest products, with over a third of the total) fell by nearly 25 percent last year to $1.27 million. The decline came as combined problems of inflation and recession caused major importing nations to cut back on purchases of raw materials, including such important Indonesian exports as rubber, lumber, palm oil, coffee, and pepper. Far the largest share of the decline came in forest products and rubber, down 34 and 28 percent, respectively.

U.S. agricultural imports from Indonesia last year also sank 25 percent to $268 million, with most of the decline in palm oil, coffee, and spices, while U.S. farm shipments to Indonesia rose 17 percent to $118 million. A sevenfold gain in U.S. wheat shipments, to nearly $50 million, accounted for much of the increase and helped to offset a decline to virtually nothing in U.S. rice sales. Other important U.S. exports were cotton, fresh fruit, and processed foods.

—Based on dispatch from
VERLE E. LANIER,
U.S. Agricultural Attaché, Jakarta

Top to bottom: Plucking tea on an estate in West Java; milling rice at a village mill; and tea pluckers waiting as their bundles of tea are weighed and recorded against monthly quotas.

Protein feed needs up

Demand for Hungarian Poultry Rising at Home, Overseas

By NICHOLAS M. THUROCZY
U.S. Agricultural Attaché
Vienna

DEMAND FOR Hungarian poultry is strong and growing both at home and abroad. But it is on the foreign market that growth is most significant for the Hungarian poultry processing industry that handles over one-half of all poultry sold in Hungary. And production is being pushed upward to keep pace, according to official and unofficial Hungarian reports.

With a centrally controlled economy, the export price does not necessarily reflect costs, but can be adjusted to a level necessary to enter any market. This could mean U.S. poultry may be faced with Hungarian product in additional markets.

At the same time, however, imports of protein feeds for the Hungarian poultry industry may rise markedly with U.S. suppliers benefiting.

In recent years the Hungarian poultry industry has absorbed between 40 and 45 percent of the country's imported protein feeds. This suggests that in 1975 the industry utilized around 300,000 tons of imported feeds, with an average estimated protein content of 44 percent. Raising poultry for meat accounts for about 50 percent of the tonnage used by the poultry industry, the rest going for egg production.

According to U.S. Census Bureau data, in 1975 the United States exported to Hungary 5,000 bushels of soybeans and 216,000 short tons of soybean oilcake and meal. The year before the U.S. export totals were 14,000 bushels and 130,000 short tons, respectively.

The Hungarian poultry processing industry last year sold abroad through the TERIMPEX trading agency 104,000 tons of poultry—17 percent more than in 1974, and nearly double the amount exported in 1970. It is one of the country's key export enterprises.

Hungarian poultry exports in 1975 moved to three continents. The bulk of foreign outlets remained in Eastern and Western Europe (over 90 percent), but increased quantities are moving to Japan and to the Near and Middle East.

Although policy requires that domestic demand be satisfied first, in 1975 the Socialist countries absorbed 43,400 tons of Hungarian poultry meat, about the same amount as a year earlier, plus 100 million eggs. Exports of poultry meat to all other countries—chiefly to Western Europe and Japan—came to about 61,000 tons, up from 45,600 tons a year before. In addition, these countries also bought over 320 million eggs and nearly 2,000 tons of down. All these earned Hungary some $120 million in 1975.

Trucks from Austria, West Germany, and Italy are handling poultry from Hungarian processing plants in larger quantities. But Hungarian poultry also is going in sizable amounts to the Soviet Union, the German Democratic Republic, and Czechoslovakia.

But even under its marketing system, Hungary still has the problem of assuring foreign buyers that the supplies they need will be available on a continuing basis.

Of the estimated total Hungarian production of live poultry for slaughter, in 1975 processing plants bought and processed 206,000 tons of live poultry, up from 189,000 tons in 1974. This continued in 1974 the industry's steady expansion that has been apparent over the years.

Fifteen years ago, the industry could not process more than 27,000 tons of chickens annually, but by 1970 it was handling 140,000 tons. In 1976, two new plants will be in operation in Zula and Szaboles Counties. Next year, a third plant will be opened in Baranya County.

Thus prospects are favorable for another production increase during 1976, although output may not grow enough to satisfy both domestic and export demand. In that case, the latter may suffer.

The successful growth of the Hungarian poultry industry is due chiefly to two major developments. For one thing, the steady rise in demand at home and abroad created a climate that favored production expansion. But more important, perhaps, was the country's rapid adjustment to modern feeding and production technologies which, among

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HUNGARY'S IMPORTS OF IMPORTANT PROTEIN FEEDS
[In 1,000 tons]

Item	1970	1971	1972	1973	1974	1975
Vegetable oil meals	336	368	377	376	577	[1] 505
Animal-origin meals (fish & bone)	85	79	68	58	83	—
Skim milk powder	34	24	14	11	16	—
Feed concentrate and mix	20	53	62	22	16	—
Total	475	524	521	467	692	505

[1] About two-thirds represents soybean meal. Source: *Hungarian Foreign Trade Statistics, 1974.*

HUNGARY'S EGG PRODUCTION, DOMESTIC CONSUMPTION, AND EXPORTS
[In million pieces]

Year	Production	Apparent domestic consumption	Exports
1970	3,280	2,890	390
1971	3,475	3,023	452
1972	3,217	2,951	266
1973	3,285	3,045	240
1974	3,628	3,287	341
1975 [1]	3,800	3,380	420

[1] Estimated. Source: *Monthly Statistical Bulletin* and quarterly statistical reports on agriculture.

Food Price Rises Slowing In Five World Capitals

LED BY a dramatic drop in the rate of increase for Argentina's food price index (FPI), decelerating rates of gain also were reported in FPI's for Denmark, Sweden, Italy, and the United Kingdom during April and May.

In Argentina, the rate of increase slowed from 42.8 percent on a monthly basis to 13.1 percent, while in Denmark the rate of gain shifted down from 5.4 percent to 0.7; Sweden, 2.4 percent to 0.6; Italy, 2.4 percent to 1.5; and the United Kingdom, 1.1 percent to 0.2.

FPI's in the 10 other countries surveyed continued their trendline advances during the 2-month period.

Retail food prices shopped by FAS in 15 world capitals on July 7 reflect extremes in weather—especially drought and excessive heat—that have damaged crops in many areas and affected food prices.

In London, grilling steaks and lamb chops have become extremely expensive, but pork prices are down slightly from the level of 2 months earlier because of larger supplies.

Prices of good quality beef and pork in The Hague remain high as a result of the relative shortage of supplies, but prices of lower quality beef and pork started to drop several weeks ago.

Along with downward price pressures on beef are the expected drought-related reductions in milk supplies. Milk prices are down in Bonn, but are expected to go up soon; elsewhere, prices already are up. Increases ranging from 1.5 percent to 5.8 percent for fluid milk are reported in Brussels, Buenos Aires, Canberra, London, and The Hague.

Higher broiler prices are reported in London, Paris, Rome, Stockholm, and The Hague—a seasonal trend that has been accelerating in recent weeks because of the heat waves.

Egg prices are down, notably in London, where the popularity of cooked breakfasts has declined because of the excessively hot weather.

Generally, fruit and vegetable prices are trending down, but to a lesser extent than usual at this time of year. Large imports of tomatoes, apples, and oranges at low prices have pushed domestic prices down in The Hague, and the Netherlands Government has imposed a ban on imports of apples from Chile because of protests by domestic apple producers.

However, Brussels repots prices for tomatoes and onions up 11 percent to abnormally high levels.

In nine of the 15 capitals surveyed, potato prices dropped. In the Netherlands, controls over potato prices were terminated after a significant volume of imported supplies halted the rise in prices.

A sharp drop in Rome's potato prices from the record levels of May is a re-

FOOD PRICE INDEX CHANGES IN SELECTED COUNTRIES[1]

Country	Latest month	Index 1970=100	Percent change from: Prev. month	Three months	One year
Argentina	May	6,267.9	+13.1	+102.4	+853.1
Australia	May	172.6	+.5	−.2	+10.4
Belgium	May	160.6	+1.1	+3.5	+14.6
Brazil	May	393.2	+3.6	+11.4	+46.6
Canada	May	168.9	+1.6	+.5	+6.3
Denmark	May	181.0	+.7	+6.5	+10.8
France	May	173.0	+.7	+2.2	+10.7
Germany	May	138.2	+.7	+2.4	+5.6
Italy	May	199.7	+1.5	+7.0	+17.2
Japan	May	195.0	−.9	+2.3	+9.0
Mexico	May	200.5	+.3	+1.2	+10.3
Netherlands	May	151.2	−.1	+2.8	+9.4
Sweden	May	167.8	+.6	+3.9	+14.7
United Kingdom	May	242.8	+.2	+3.3	+18.4
United States	May	156.6	+.4	−.1	+4.7

[1] Based on official price indexes.

FAS SURVEY OF RETAIL FOOD PRICES IN SELECTED WORLD CAPITALS, JULY
[U.S. dollars per lb or units as indicated, converted at current exchange rates

City	Steak, sirloin, boneless	Roast, chuck, boneless	Pork chops	Roast, pork, boneless	Ham, canned	Bacon, sliced, pkgd.	Broilers, whole	Eggs, dozen	Butter	Margarine	Cheese: Edam, Gouda, or Cheddar	Milk, whole, quart	Oil, cooking, quart	Tomato
Bonn	4.12	2.82	2.31	3.70	([1])	3.96	0.77	0.96	1.57	0.70	1.72	0.37	1.48	0.51
Brasilia	.74	.48	.93	1.99	1.84	2.49	.51	.66	1.30	.44	1.36	.20	.80	.26
Brussels	3.82	1.96	1.88	2.00	2.63	1.37	1.11	.96	1.62	.66	1.84	.39	1.07	.97
Buenos Aires	.63	.27	.79	([1])	([1])	([1])	.46	1.05	1.11	.58	.83	.21	1.59	.26
Canberra	1.71	.78	1.80	1.80	4.65	2.79	.96	1.13	1.07	.97	1.43	.42	1.60	.68
Copenhagen	4.86	2.28	2.65	2.79	2.40	2.49	.97	1.24	1.50	.43	1.39	.38	1.61	.70
London	3.14	1.46	1.41	1.14	1.52	1.84	.61	.72	.74	.54	.94	.25	1.14	.54
Mexico City	1.81	1.34	1.44	1.84	2.96	1.94	.98	.76	1.68	1.01	3.70	.30	1.38	.38
Ottawa	2.04	1.38	2.19	2.31	2.35	1.66	.89	.96	1.20	.92	1.70	.59	1.36	.71
Paris	2.93	1.57	([1])	2.59	3.37	3.82	.87	1.11	1.65	.56	1.60	.34	1.04	.59
Rome	2.99	2.17	1.90	1.90	4.48	1.73	1.09	1.19	1.74	.76	1.51	.32	.80	.38
Stockholm	5.11	2.89	2.32	4.16	2.89	2.66	1.47	1.55	1.37	.95	2.15	.31	4.23	1.16
The Hague	3.66	2.08	2.15	2.73	2.25	2.98	.75	.88	1.39	.43	1.65	.33	.82	.33
Tokyo	8.42	6.73	2.82	3.21	4.25	2.83	1.22	.79	1.92	1.28	1.68	.65	1.25	.54
Washington	1.77	1.12	2.06	2.29	2.67	1.98	.51	.78	1.30	.59	2.37	.48	1.49	.72
Median	2.99	1.57	1.98	2.30	2.67	2.49	.89	.96	1.39	.66	1.65	.34	1.36	.54

[1] Not available. Source: U.S. Agricultural Attachés.

sult of the availability of new-crop supplies.

Sugar prices increased slightly in Brussels, Stockholm, and The Hague as a result of price adjustments in early July. In Brasília, the price of sugar rose 43 percent, reflecting removal of the Government's consumer subsidy.

Cooking oil prices are down in most of the capitals surveyed, but in Brazil increased export demand for soybean oil has contributed to a 30 percent price increase.

Bread prices rose slightly in seven capitals. In Ottawa, major bakeries raised bread prices by 2 Canadian cents per loaf at retail, citing increased labor and energy costs.

Tokyo reported reduced prices for 15 of the 21 items surveyed. To reach a broader mix of consumers, two more Tokyo food stores were shopped. Prices in these stores are generally lower than in the stores included in the previous sample and account for most of the average 24 percent decline in prices during the 2-month period.

Tomato and onion prices have eased in Tokyo because of larger supplies, as have prices for cheese, butter, and milk. Margarine prices are down because of lower raw materials costs and a Government recommendation for lower prices.

Margarine prices are down in eight of the 15 capitals, and butter prices are up in six capitals. In Washington, butter prices rose 9 percent in the 2-month period, while margarine prices dropped 20 percent.

—Sidonia R. DiCostanzo, FAS

Data Qualifications

Food price indexes, which reflect food price changes in general, are obtained from official government sources. They are based on local-currency prices, and are not directly affected by exchange rate fluctuations.

Food prices of selected commodities are obtained by U.S. Agricultural Attachés on the first Wednesday of every other month. Local currency prices are converted to U.S. prices on the basis of exchange rates on the date of the compilation. Thus, shifts in exchange rates directly affect comparisons between time periods.

The objective of the survey is to reflect the level of prices in other countries of items normally purchased by U.S. consumers. Exact comparisons are not always possible, since quality and availability vary greatly among countries. An attempt is made to maintain consistency in the items and outlets sampled, but they are not necessarily representative of those in the reporting countries.

oes	Apples	Oranges, dozen	Bread, white, pkgd.	Rice	Sugar
	0.19	1.62	0.32	0.62	0.26
	.38	.43	.41	.20	.15
	.35	1.59	.29	.40	.32
	.13	.53	.29	.39	.36
	.26	1.19	.40	.32	.17
	.43	2.44	.57	.46	.27
	.41	.81	.18	.32	.16
	.72	.56	.31	.38	.08
	.40	1.34	.35	.55	.26
	.31	2.10	.74	.31	.25
	.19	1.11	.37	.27	.25
	.62	1.08	.83	.58	.36
	.16	.79	.27	.36	.26
	.91	7.09	.38	.40	.41
	.42	1.34	.48	.35	.25
	.38	1.19	.37	.38	.26

Philippine Copra Crop and Trade Up

Philippine production of coconut—the most important domestic source of edible oil—is expected to increase sharply in 1976, resulting in production and export gains of up to 14 and 20 percent, respectively, for copra and coconut products. Value of exports, however, will be below the 1975 level due to lower prices this year.

Philippine exports of coconut products such as copra, coconut oil, cake and meal, and desiccated coconut are all expected to rise in 1976, with the greatest gains seen in desiccated coconut and cake and meal, up 18 percent to 65,000 long tons and 20 percent to 35,000 tons, respectively.

In 1975 the United States was the largest importer of desiccated coconut—36,000 tons—while the People's Republic of China (PRC) was the major importer of cake and meal—nearly 291,000 tons, or 99.7 percent of total exports.

Exports of copra in 1976 are estimated to increase 11 percent above last year's volume to 900,000 long tons from 814,000 tons, while coconut oil shipments may also rise 11 percent to 650,000 tons. (Preliminary data through May indicate that these estimates will probably be exceeded significantly, since combined exports of copra and coconut oil totaled 549,500 tons, oil basis—54 percent above the same 5 months a year ago.)

The United States continued to be the major destination for Philippine coconut oil exports in 1975, absorbing 455,000 tons, 78 percent of the total and 43 percent more than 1974. Other major importers included Western Europe, 53,000 tons; Japan, 21,000 tons; and the PRC, 16,000 tons.

Philippine production of coconut products should also enjoy a good season in 1976, owing to favorable weather and increased acreage. Copra production may rise 10 percent in 1976, according to the United Coconut Association of the Philippines (UCAP), to 2.4 million long tons. (Although the estimated gain is for less than the 60 percent rise in production between 1974 and 1975, it could well exceed the 1976 estimate.)

Coconut oil and cake and meal both appear likely to increase by 12 percent to 910,000 and 460,000 tons, respectively. Desiccated coconut may recover from last year's drop of 8 percent to 57,000 tons, rising 14 percent to 65,000.

Export prices of coconut products, except copra cake and meal, have declined from the record levels reached in 1974. The average traded prices per long ton f.o.b. of coconut products exported in 1975 were: Copra, $254.73 ($543.19 in 1974); coconut oil, $408.68 ($940.13); copra cake and meal, $106.90 ($103.80); and desiccated coconut, $452.73 ($952.84 in 1973).

In April 1975, as world copra prices declined, the Philippine Coconut Authority discontinued subsidy payments to manufacturers of edible coconut oil for domestic consumption. A month later, similar subsidies for crude coconut oil were also discontinued.

Philippine exports of fats and oils—except for coconut oil—are relatively small, owing to low production levels totaling not more than 5,000 long tons. Most important, by volume, are fish and soybean oils, with 545 and 285 tons, respectively, exported in 1975. For the first time, palm oil and palm kernel oil were exported in 1975, and although exports totaled only 200 tons each, production is gaining importance.

Castorbean exports were also up—116 percent—to 7,660 metric tons from 3,554 in 1974, owing to good demand that is expected to increase.

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Opportunities For U.S. Seed In Greece

By WILFERD L. PHILLIPSEN
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Production of seed potatoes from imported foundation seed.

DESPITE AN ambitious seed production program of its own—and some stiff import restraints to protect local producers—Greece appears to be a good candidate for expanded purchases of U.S. field and vegetable seeds.

U.S. exports of these products to Greece in 1975 totaled only $416,000 or 8 percent of Greece's total seed imports of $5.8 million, with vegetable seeds accounting for nearly half the total. This was, however, 25 percent more than the $333,000 worth sold in 1974. And the strong quality reputation of U.S. seeds, plus shipping costs that in several cases are no higher than those of competitors, indicates that with more aggressive sales efforts U.S. exporters may be able to boost shipments further, particularly of seed potatoes, cucumber, and flower seeds.

Greece purchases between $1.5 million and $4 million worth of seed potatoes annually. In 1975, these Government purchases included 3,690 metric tons of foundation-elite seed potatoes and 12,550 tons of certified seed. Although freight rates are approximately the same, more than 60 percent of the seed potatoes purchased came from Canada, while none came from the United States.

Another opportunity for U.S. exporters is hybrid cucumber seed, which has not been produced successfully in Greece. Roughly 900 pounds of hybrid, long-fruit cucumber seeds, valued at $500,000, are imported yearly. While Greece currently imports most of its cucumber seed from the Netherlands, freight costs from the United States to Greece vis-a-vis freight costs from the European Community (EC) are not an important factor in determining source of supply because cucumber seed is a low volume/high value commodity.

In view of the growing Greek flower industry, along with prospects for the expansion of Greek flower exports, flower seeds also represent an opportunity for U.S. exporters. In addition, U.S. seed companies may wish to explore the possibility of producing seed in Greece. Currently, through the use of producer contracts, Swedish and French companies are producing alfalfa seed and several German firms are producing bean and other vegetable seed in Greece. Most of this is exported to EC countries.

Dominating U.S. competition in the Greek market is the Netherlands, which supplied about two-thirds of the nearly $3 million of seeds imported by Greece during the first half of 1975. The United States led other suppliers, accounting for $250,000 during the first 6 months, compared with $150,000 for Denmark, $160,000 for Italy, and $100,000 for Turkey.

Potato seed imports are handled exclusively by Government of Greece tenders. Field and vegetable seed imports are handled by the Agricultural Bank of Greece and/or the approximately 80 private seed importing firms. Flower seeds are imported exclusively by private importers. However, private seed importers are faced with several nontariff barriers designed to protect domestic seed producers and to save foreign exchange.

FOR INSTANCE, it is practically impossible to import any kind of seed produced in sufficient quantities by the Greek Government's seed propagation program. For seeds not produced locally, the prospective importer must obtain a license from the Ministry of Commerce. Such license must be approved by the Ministry of Agriculture, and this approval is given only upon proof that there is insufficient seed of this particular kind produced locally to cover domestic requirements. Finally, the pro forma invoices covering the seed to be imported must be validated by the Greek Chamber of Commerce.

Seed production in Greece, under Government management, dates back to 1925, when the Greek Ministry of Agriculture initiated a program to locate and propagate high-yielding wheat varieties. Actual imports of seed were not made until 1928, however, when the Ministry imported two varieties of seed: Mentana from Italy and Canberra from Australia. The imported seed was distributed to progressive farmers and results the first year were very satisfactory. But the following year an outbreak of rust destroyed practically the entire harvest. This experience led the Government to decide that new seed varieties would be test planted for at least 2 or 3 years to determine their adaptability to Greek environmental conditions before being distributed to farmers.

Subsequent efforts—using foundation seed imported primarily from the United States—have resulted in substantial progress in various sectors of the Greek Government's seed production program. Greek authorities and farmers have a great deal of confidence in U.S. seed because of the excellent results received in the past from varieties such as Ohio C-92 and Wisconsin 355 hybrid corn and a Coker variety of cotton, which at one time covered 75 to 80 percent of the total Greek cotton acreage.

More recently, the high reputation of U.S. seed has been maintained by the excellent results obtained with new U.S. vegetable varieties. The case of watermelon seed, in which the U.S. varieties Blue Ribbon and Charleston Gay have become predominant, is an example.

USSR's Meat Output Down; Last Year's Imports High

RECENT DATA released by the USSR's Central Statistical Directorate indicate that Soviet meat production was 7 percent lower in the first 5 months of 1976 than in the same period a year earlier, and that 1975 imports of meat and meat products were at about the same record level as in the previous year.

Total meat production (live-weight basis) on Soviet collective and State farms during January-May 1976 dropped 390,000 metric tons below the level for the same period of 1975 to 5.1 million tons. In 1975, the period's total was 5.49 million tons. The 7 percent drop in 1976 compares with a 4 percent gain in the January-May period of 1975, compared with 1974.

Beef and mutton output rose 4 and 18 percent, respectively, above output during January-May 1975. Pork production continued at a low level—32 percent below that of a year earlier. Poultry meat made no gain.

Production on collective and State farms during the 5 months of 1976, compared with that for the same period of 1975 (given in parentheses), in thousands of metric tons, live weight, was: Beef, 3,484 (3,343); pork, 1,154 (1,709); mutton, 159 (135); and poultry, 305 (305).

Livestock inventories as of July 1, 1976, on collective and State farms showed a 1 percent gain from year-earlier levels in total cattle numbers, but decreases in hog, poultry, and sheep and goat numbers. Hog numbers were 16 percent and poultry numbers 12 percent lower. The monthly change in hog numbers indicated a buildup of the hog population in June. Sheep and goat numbers were 4 percent less.

Livestock numbers on collective and State farms on July 1, 1976, compared with the 1975 totals (in parentheses), in millions of head were: Total cattle, 87.7 (86.6); cows, 27.8 (27.5); hogs, 46.5 (55.6); sheep and goats, 140.3 (146.8); and poultry, 506.1 (573.3).

Milk production on collective and State farms in January-May, compared with a year earlier, was down 8 percent to 23.1 million tons, the result of a 10 percent drop in average milk yields.

Egg production, at 14.3 billion, was down 4 percent, although the average rate of lay per hen rose 2 percent above the year-earlier level.

Industrial output of meat from Government-held supplies during January-June 1976 reached 3.4 million tons, 18 percent below the output level of a year earlier. Total butter output, which had dropped 7 percent during January-May, compared with a year earlier, fell 4 percent to 578,000 tons in January-June, probably because of a further decline in Government purchases of milk from collective and State farms. Production of whole milk products, at 11.8 million tons, continued to decline, by 4 percent, from the year-earlier level.

Soviet imports of meat and meat products were 515,200 tons in 1975, excluding about 150,000 tons of meat (beef, mutton, and horsemeat) processed from imported livestock (primarily cattle). Total imports of meat and meat products (excluding meat processed from imported livestock) reached 1.5 million tons during 1971-75, triple the amount imported during the previous 5-year period.

The record Soviet imports of 515,100 tons of meat and meat products in 1974 (excluding about 81,000 tons of meat processed from imported livestock) were related more to the large quantities of low-priced meat and meat products made available by the European Community, both directly and through a ban on imports, rather than to any decrease in Soviet domestic output and supply. Furthermore, because of the EC ban on beef and cattle imports in mid-1974, the USSR was forced to act as an alternate market for East European exporters. Thus, Soviet imports of meat and meat products in 1974 almost quadrupled in volume, compared with 1973 imports.

ALTHOUGH the EC ban on beef and cattle imports was relaxed somewhat in 1975, East European countries—especially Hungary—were still hard pressed in marketing these commodities and were forced to continue to turn to the USSR as an alternate market. Hungary alone reportedly shipped 130,000 head of beef cattle (about 65,000 tons live weight) to the USSR in 1975—compared to 67,000 head (about 33,000 tons live weight) shipped in the latter part of 1974—the first such shipment made from Hungary to the USSR.

In order to handle the large number of slaughter cattle arriving monthly (10,000 head under the 1974/75 contract) from Hungary, it was reported in October 1975 that the Soviets were constructing a new meat processing plant in Mukachevo, located in western Ukraine just across the Hungarian border.

In May 1976, the Soviets signed a new 10-year contract with Hungary to import about 50,000 tons of beef cattle (live weight) annually. Construction of the meat processing plant in Mukachevo would ease problems in transporting the cattle arriving from Hungary to distant areas of the Soviet Union for processing, and would establish the USSR as a future market for Hungarian cattle.

By year, Soviet imports of meat and meat products, excluding meat processed from imported livestock, totaled 224,600 tons in 1971; 130,600 in 1972; 128,500 in 1973; 515,100 in 1974; and 515,200 in 1975.

—By ANGEL O. BYRNE, ERS

Philippine Copra

Continued from page 7

Production of other oilseeds, though not as substantial as that of coconut, was quite good in 1975. Peanuts, with the 1974/75 crop up 68 percent to 35,609 tons, are expected to increase in production this year owing to good demand and favorable prices.

Although soybean production has been increasing rapidly in the past few years, it is still relatively small compared to other oilseeds produced. The 1974/75 outturn is officially estimated at 5,568 long tons, an increase of 156 percent over that of 1973/74. The forecast for the current year is for a production of 10,000 tons.

Despite increasing production, the Philippines still imports a great deal of its fats and oils and oilseeds. In 1975 the United States accounted for probably the largest share of total Philippine imports of major fats and oils—38 percent—with U.S. tallow the largest import at 5,358 metric tons.

—Based on a report from *U.S. Agricultural Attaché, Manila*

U.K. Experimental Unit Helps Boost Hill-Farm Output

By MARSHALL H. COHEN
Foreign Demand and Competition Division
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WITH A POPULATION of considerably more than 56 million persons compressed into a land area of about 94,000 square miles—much of it unusable because of its rough topography—the United Kingdom must take advantage of every resource if it is to produce a larger share of its food than it now does. Among the agricultural elements engaged in this campaign are the country's research facilities, an example of which is Redesdale experimental farm, located just 10 miles south of the Scottish border—a facility that is zeroed in to help solve production problems of U.K. hill farms.

Redesale farm—it takes its name from Rede Valley in which it is situated—is Britain's northernmost experimental station. The surrounding hills are rugged and relatively bare of foliage, but the farm's fields are brightened in the summer by colorful heather blooms and dotted all year round by the bicolored Scottish Blackface sheep, sporting bright dye spots on their rumps.

J. P. Wray, Redesdale's chief scientist, often comments, "We are far from the madding crowd," but he believes the farm's isolation is a blessing, rather than a handicap, in advancing its research programs. Indeed, the relative seclusion of the hill research farm, remote from markets though it is, camouflages the national importance of the work engaged in there.

In addition to doing field and animal husbandry studies—particularly those dealing with sheep—ways to improve hill-farm grazing are also researched. The effectiveness of these carefully monitored Redesdale feed/livestock programs are demonstrated to proprietors of other hill farms throughout the United Kingdom, especially those having a potential for increasing livestock production on hill and upland grasslands by the application of adequate financial and technological resources.

The importance of hill farms in the United Kingdom's agricultural economy is likely to continue to grow since one-third of all U.K. rural area consists of mountains and hill land. Also, hillside farms producing livestock are likely to become more important to the meat industry. It is estimated that in recent years, cattle and sheep from hill farms have accounted for approximately 15 and 30 percent, respectively, of total U.K. output of these animals.

Although hill farming contributes only about 8 percent to the United Kingdom's gross agricultural output, it could assume a larger role in the agricultural structure since U.K. specialists have called for greater use of relatively low-cost grass for feed, particularly for beef from dairy cows, as well as for lamb and mutton.

The Redesdale farm totals 3,877 acres, most of it taken up by feeding enclosures, each containing a flock of sheep marked with its own identifying dye "brand." At Redesdale, as on many similar U.K. hill farms where there is little winter grazing, a large percentage of the farm's animals are sold to lowland farmers late in the year for fattening or breeding.

A typical sheep enclosure contains fenced plantings of the area's most important pasturage that are used in various feeding tests. These include eight types of grasses—largely Italian varieties—perennial ryegrass, timothy, and clover. Additionally, the enclosures contain large areas of rough vegetation and turnips—the latter a valuable and easily digestible source of both proteins and carbohydrates.

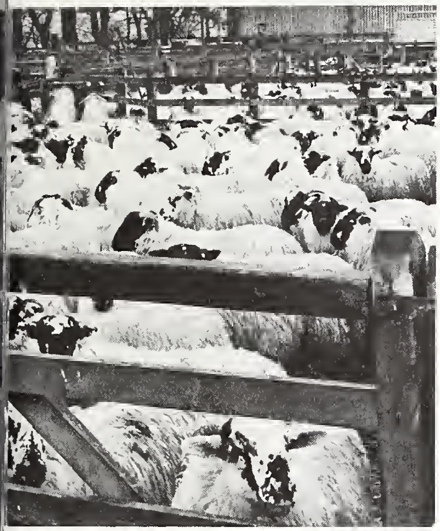
(Redesdale's turnips are planted within the enclosures by one of the most modern methods—direct seed drilling after the sward (sod) is killed chemically. This technique has made productive areas where previously field crops could not be grown.)

And like other hill farms, Redesdale's land is generally unsuited to grow many field crops since the land is peat over clay in most areas, with some patches of leached soils, requiring lime and phosphate to overcome the land's deficiencies. Thus, the success of Redesdale's program depends largely on the effective use of its grasses—a success that is particularly noteworthy when measured in terms of the land's sheep-stocking rate.

A typical enclosure holds 250 breeding ewes, grazing outdoors all year. Each ewe requires 1-2 acres, compared with 2.8 acres per ewe in 1968/69 when the animal load per acre was less than one-half that of 1974/75. This decline in required feeding area indicates the increased production that can be achieved largely through improved grassland management.

It is common practice at Redesdale

Clockwise from below: Scottish Blackface sheep in pen at U.K. Government's Redesdale Experimental Farm waiting to be shipped to a lowland farm for fattening or breeding; Blackface sheep in pasture; J.P. Wray, the farm's chief scientist.



to use a two-pasture system. Within each feed enclosure, a small area is fenced off and planted with improved grass varieties, perennial ryegrass, and wild white clover, replacing the original, less productive molina (moor grass). The improved area is used for ewe feed at critical periods of the year—for example, in October before they are served by the ram, and again at lambing time when feed from the "rested" areas is used to stimulate greater milk yields.

It is common for a Redesdale ewe to lamb for the first time at 2 years, then produce five annual crops of lambs before the animal is sold at 6½. The ewe is normally mated in November and thus it is important to have good grass available during September and October in preparation for the mating period. Without the special ryegrass and clover enclosures, it would be difficult to provide high-quality feed as needed since the unimproved hill pasturage is not nutritionally adequate.

Also, the ewe must start the winter in good condition and be able to draw on its own fat reserves for food, although supplemental hay is available. The ewe is strengthened during the last 6 weeks of pregnancy with feedings of concentrates totaling about 30 pounds. This schedule was designed to result in a pregnancy beset with fewer problems and a satisfactory lamb birthweight leading to a better weaning weight.

Each unit of four flocks, totaling about 1,000 ewes, is tended by only one Redesdale shepherd, in contrast to other areas where a shepherd watches over flocks that are sometimes much smaller. And unlike the general impression of a shepherd as an unlettered man, a Redesdale shepherd is a highly trained specialist able to carry out complicated feeding tests, as well as being an expert in building and ground maintenance.

Although most of Redesdale's resources are devoted to sheep breeding (in general, the hill farm provides sheep breeding stock and store animals to lowland farms for fattening), the farm also keeps a herd of cattle one of whose functions is to graze the excess summer growth and keep the fields' herbage in optimum condition for the sheep. The cattle are mainly Blue Greys produced by crossing a Shorthorn bull with the hardy Galloway, a breed capable of grazing coarse hill vegetation all year round. The Blue Greys are also crossed with Charolais and the progeny is sold to lowland farms for finishing for beef.

The importance of the research being done at Redesdale is indicated by the Government's drive to increase the United Kingdom's home-produced food supply and its likely continuing interest in the welfare of its hill farms. The Government's White Paper, "Food From Our Own Resources" (April 1975), called for an annual boost in agricultural output of 2.5 percent through 1980.

Greater output of grass for feed—a primary interest at Redesdale, along with sheep production—would indirectly boost food outturn and at the same time provide a substitute for imported grains. And a rise in sheep and mutton outturn would also help cut meat imports.

In 1975, the United Kingdom's degree of self-sufficiency in feedgrains is estimated to have declined from over 70 percent in recent years to 64 percent. Also, the United Kingdom is a net importer of lamb and mutton.

In 1975, U.K. live sheep exports to France, the United Kingdom's major market, totaled 235,000 head, up from 81,000 head in 1974. In the same year, the United Kingdom's lamb and mutton imports of 244,000 tons represented 25 percent of U.K. consumption.

The report projects an increase in lamb and mutton output to about 295,000 tons by 1980, compared with a 1974/75 level of 245,000 tons.

Although hill farmers are at an economic disadvantage since they produce only a limited range of food commodities, successive U.K. Governments have allotted high sheep and cattle subsidies to partly offset these regional shortcomings. Excluding certain European Community supports, and assistance available under the U.K. Farm Grant Schemes—providing aid for capital improvements—support for hill area agriculture has comprised 20 percent of Government subsidy expenditures in recent years.

FOR EXAMPLE, in 1974/75, the annual sheep subsidy was about $7.95 per ewe and the cattle subsidy was $53.41 per head—including a special winter-keep subsidy that helped pay for feed consumed during the time cattle were penned, or for special animal shelters.

(Last year an average Redesdale sheep brought in $26.16 for meat and $2.18 for wool. The feed-cost component was only about $4.36 per sheep—a relatively low figure, reflecting the farm's efficient use of low-cost grass.)

The future of U.K. hill-farm sheep production may be altered by a proposed Common Agricultural Policy (CAP) for lamb and mutton, now under discussion in the EC Council. At present the EC provides special compensation to less favored areas including such rugged farms. The United Kingdom produces about 50 percent of EC lamb meats, and a CAP for these products could boost U.K. exports to its continental partners—especially France. But adoption of the CAP would mean that U.K. national subsidies would be phased out, possibly offset by some of the advantages of the lamb and mutton CAP.

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FOREIGN AGRICULTURE

Demand for Hungarian Poultry Up at Home, Abroad *Continued from page 5*

other things, required expanded use of protein feeds in the poultry ration.

From the 206,000 tons of live poultry delivered to the processing industry in 1975, the industry produced some 133,000 tons of dressed poultry meat, 8 percent more than in the previous year. This amount greatly exceeds the annual sales of some 30,000 tons shipped by the processing industry to domestic markets, which usually receive the bulk of their supplies from local small-scale farmers and larger pountry and egg cooperatives.

Many thousands of tons of live poultry and poultry meat also reach domestic markets from household plots and small local cooperatives, many of which have their own retail outlets scattered throughout the country.

It is estimated that domestic markets consumed a total of about 166,000 tons of poultry meat in 1975, equivalent to 15.2 kilograms per capita. This is the highest level of consumption in Europe.

Hungary's poultry product has a good reputation for quality. But Hungarians know that quality alone is not enough to maintain and expand important markets. Packaging, labeling, other services, and pricing policies are just as important to keep this lucrative business growing.

More than 500 large-scale State and collective farms regularly supply the expanding Hungarian poultry processing industry with live birds. Some of these farms are capable of delivering 300 carloads of poultry a year. They are efficient, with up-to-date production techniques and feeding methods. In 1975, they delivered 139,000 tons of chickens, 14,000 tons of hens and roosters, 11,000 tons of turkeys, and 42,000 tons of geese and ducks (all live weights).

If Hungary continues to expand its poultry production for the next 5 years under the impact of growing domestic and foreign demand, imported feed requirements—including those for egg production—will create an enlarged protein feed market of some substance.

Given the present favorable market climate and the limited Hungarian resources to develop their own supplies, protein feed imports of an additional 100,000 tons a year by 1980 are quite possible, bringing the import total to 400,000 tons. The bulk of tonnage should be soybean meal. This estimate appears to be reasonable since many thousands of chickens are still fed grain only, without protein-mix enrichment.

HUNGARY: POULTRY PRODUCTION, DOMESTIC CONSUMPTION, AND EXPORTS
[In 1,000 tons]

Year	Live weight of poultry processed	Dressed weight of total production[1,2]	Apparent home consumption[2]	Exports
1971	296	225	152	73
1972	287	217	150	67
1973	308	223	154	69
1974	342	246	157	89
1975	375	270	166	104
1976[3]	400	290	190	100

[1] For domestic markets, dressed production is estimated at about 80 percent of live weight; for export markets, it is estimated at 67 percent. [2] Hungarian poultry processing industry handles about one-half of this volume. [3] Estimated. Source: *Monthly Statistical Bulletin* and quarterly statistical reports on agriculture.

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